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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,040	11/29/2000	Toshikatsu Furunaga	Q62004	8611

7590 01/05/2006

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

NUTTER, NATHAN M

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 01/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/725,040

Applicant(s)

FURUNAGA ET AL

Examiner

Nathan M. Nutter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20,22-26,29 and 31-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20,22-26,29 and 31-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

This application has been re-assigned to Examiner Nathan M. Nutter in Art Unit 1711. All inquiries regarding this application should be directed to Examiner Nutter at telephone number 571-272-1076.

Claims 20, 22-26, 29 and 31-34 are pending.

Specification

The disclosure is objected to because of the following informalities:

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20, 24-26, 29 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Auhorn et al (US 4,908,240) in view of Yoshimura et al (US 6,171,381).

The reference to Auhorn et al (US 4,908,240) discloses an aqueous coating agent for paper consisting of (a) pigment, (b) a cationic aqueous polymer dispersion and (c) a surfactant. Note the Abstract. The reference teaches that "from 5 to 30% by

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weight” of the cationic polymer may be replaced with water-soluble polysaccharides.

Note column 7 (lines 23-29). The reference teaches the use of cationic polymers, including those recited in claims 24-26 at column 2 (line 46) to column 5 (line 7) of instant claims. The reference teaches the use of surfactants, including those recited in instant claims 27-30 at column 7 (line 30) to column 8 (line 22). The ratios of surfactant to the water-soluble polysaccharide, as recited in claims 31 and 32, are shown at column 7 (lines 23-26). Furthermore, the claimed ratios of surfactant to polysaccharide, as recited in instant claims 33 and 34, can be calculated from teachings at column 2 (lines 4-10) and at column 7 (lines 23-24). The instant claims are directed to a method for sizing paper. The only substantial step of the method is applying a coating onto or impregnating a raw paper. This step is well-known and conventional in the paper art and is always associated with a material being used as a sizing agent.

The reference to Yoshimura et al (US 6,171,381) teaches the manufacture of an aqueous metallic ink composition comprising a metallic powder pigment, a colorant, water, a water-soluble organic solvent, a natural polysaccharide and a water-soluble soy polysaccharide or derivative thereof. Note column 1 (lines 3-10). Patentee discloses at column 2 (lines 23-27) that the polysaccharide functions as a coating or size for a substrate such as paper. The patent teaches the preparation of the water-soluble polysaccharides at column 6 (line 50) to column 7 (line 59). The polysaccharides, “SOYAFIVE S-DN” and “SOYAFIVE S-LA200,” taught by the reference at column 7 (lines 40-42) are disclosed in the instant specification at page 14. the employment of a surfactant is disclosed at column 11 (line 66).

It is true that Yoshimura et al use soy polysaccharide together with other natural polysaccharides as a binder. It is the examiner's position that the instant claims do not preclude the inclusion of natural polysaccharide unless it is established that these other moieties adversely affect the basic and novel characteristics of invention as claimed. Further, Auhorn et al employs polysaccharide mixed with a cationic polymer as a binder. The reference to Yoshimura et al is relied upon for its disclosure of the use of soy polysaccharide or soy polysaccharide derivative in a coating composition such as an ink composition. See column 3 (lines 46-61).

Therefore, and in the absence of any unexpected or surprising results, it would have been obvious to employ the soy polysaccharide as taught by Yoshimura et al in the coating of Auhorn et al in order to enhance the stability of the coating disclosed by Auhorn et al with respect to viscosity. Though the prior art does not explicitly mention the limitation recited in instant claim 1 of quick penetration of applied ink and suppression of applied ink and suppression of spreading of ink dots, it is reasonable to assume that the sizing agent of prior art, which reads on the instantly claimed one with respect to properties and compositions, automatically satisfies this limitation unless provided otherwise.

Response to Arguments

With regard to the Auhorn et al reference, applicants assert that patentees would only replace polymer component (b) the cationic polymer with "water-soluble starches, carboxymethylcellulose, methylcellulose, hydroxymethylcellulose and galacomannanes (Auhorn at column 7, lines 26-29). Auhorn fails to teach or suggest the use of water-

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soluble soybean polysaccharide extracted from soybean as a water-soluble polysaccharide.” Applicants are reminded that the reference is being used in a rejection of the claims under 35 USC 103 and not under 35 USC 102, as the argument would imply. If each and every feature had been shown by the Auhorn et al reference, the rejection would have been made under 35 USC 102 (b), as argued by applicants. The patent teaches clearly that water-soluble polysaccharides may be employed. The employment of any water-soluble polysaccharide as preferred to any other has not been demonstrated. No unexpected or surprising results have been shown on the record in this regard. The reference to Yoshimura et al shows the conventionality of the use of the soy polysaccharide. Subsequent employment in the composition of Auhorn et al, at the suggestion to use water-soluble polysaccharides, would certainly be an obvious modification to an artisan of ordinary skill.

With regard to the Declaration of Yoshiyuki Kondo, one of the inventors of the instant application, the composition of Table 1 that is alleged to correspond with the teachings of Auhorn et al, Example 2 of the Table, does not employ any polysaccharide, as is taught by the reference to be suitable for replacement of the cationic resin. Auhorn et al are very clear that “from 5 to 30% by weight” of the cationic polymer may be replaced with water-soluble polysaccharides, yet this teaching is not shown or even alluded to in the Declaration. Indeed, the comparison fails to recognize or acknowledge that concept. Applicants are reminded that a reference is taken for the entirety of its teachings, and not for any isolated passage employed to remove the basis for a rejection. As such, the Declaration cannot serve to lend patentable weight to the instant

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claims or promote patentability over the combined teachings of the references as applied above since it is not drawn to concepts as disclosed by the reference.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

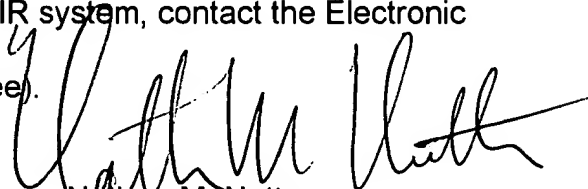
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nathan M. Nutter
Primary Examiner
Art Unit 1711

nmn

31 December 2005